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XXIX.—*Ornithological Results of an Expedition to the Philippine Islands in 1887 and 1888.* By J. B. STEERE, Ph.D.

[Plates VII., VIII.]

THE Steere Expedition to the Philippines went out from the University of Michigan in the year 1887, and spent about twelve months in the islands.

The object of the expedition was to make general zoological collections, and at the same time to examine as many distinct localities as possible, so that the distribution of species in the various islands might be studied. Fifteen of the larger islands, situated in all parts of the group, were visited, and from two to six weeks spent upon each. This amount of time, with a party of five collectors from the United States, and such native help as could be obtained, sufficed to make very large, though by no means exhaustive, collections of vertebrates, and important collections in several groups of invertebrates.

As far as possible, examples of all the species of birds in each island were collected, and of all ages and both sexes. Large collections of nests and eggs were also made. A few species, such as *Megapodius dillwyni*, *Munia atricapilla*,

Turnix nigrescens, and *Cinnyris jugularis*, were found nesting in the fall and early winter months. The first three mentioned apparently breed nearly all the year round. By February the number of species nesting was considerably increased, but the full tide of nesting was not reached until the months of May and June, the number then decreasing through the latter part of June and July much more rapidly than it had increased.

The following is a list of the dates and the order in which the islands were visited:—

Paragua, August and September, 1887; Mindanao, October; Basilan, November; Mindanao, again in December; Guimaras, December; Panay, January, 1888; Negros and Siquijor, February; Cebu and Bojol, March; Samar and Leyte, April; Masbate and Marinduque, May; Mindoro, June; Luzon, July, 1888.

As island after island was reached and collected upon by the party, the discovery was made that the Philippine group is divided into several quite distinct zoological subdivisions, which I have considered to be Sub-provinces, and have named as follows:—(I.) the Sub-province of the North Philippines, made up of Luzon and the small adjacent islands; (II.) Mindoro; (III.) Central Philippines, embracing the islands of Panay, Negros, Guimaras, Cebu, and Masbate; (IV.) the West Philippines—Paragua and Balabac; (V.) the South Philippines—Mindanao and Basilan; (VI.) the East Philippines—Samar, Leyte, and probably Bojol.

There are marks of still further differentiation within these six divisions, notably in the instances of Cebu and Basilan.

The differences in the birds of these Sub-provinces were so great that a stay of a single day in an island was sufficient to prove whether we had reached a new area or not.

In May, after having visited the eastern islands of Samar and Leyte, we stopped at the island of Masbate on our way north, and immediately recognized its birds as being like those of Panay and Negros, thus placing it in the division of the Central Philippines which we had visited three months before.

The genera most relied upon for the establishment of these divisions were *Loriculus* and *Prioniturus* among the Parrots; *Thriponax* and *Chrysocolaptes* among the Woodpeckers; *Actenoides* and *Ceyx* among the Kingfishers; *Buceros*, *Cranorrhinus*, and *Penelopides* among the Hornbills; and *Artamides*, *Dicrurus*, *Irena*, and *Iole*. Though these genera are, perhaps, the most uniformly distributed through the Sub-provinces, with local species in each Sub-province, many other genera corroborate the same theory.

The little island of Siquijor, south of Cebu, and between that island and Mindanao, seems to be a remnant of another Sub-province, now nearly swallowed up by the sea. The presence of a distinct species of *Dicaeum* and of very well-marked species of *Iole* and *Loriculus* limited to the space of a few miles square, seems most readily explained in this way. The Philippine Islands are all volcanic, and their shores show signs of frequent changes of sea-level, which, on account of the shallow channels that separate the islands, would work rapid and extensive changes of the land-surface of the group.

Altogether the Steere Expedition obtained examples of 3 species of birds in the Philippines, of which 53 appear to be new to science. I have already given a preliminary list of the birds in a pamphlet published at Ann Arbor on July 14th, 1890*. In order to make the new species better known, I have accepted the offer of the Editor of 'The Ibis' to restate their characters; and to give illustrations of two of the principal novelties.

1. PRIONITURUS LUCONENSIS, sp. nov. (*Op. cit.* p. 6.)

Adult male and female.—General colour above and below, including the head, bright yellow-green.

Hab. Marinduque, Luzon.

* A List of the Birds and Mammals collected by the Steere Expedition to the Philippines, with Localities, and with brief preliminary Descriptions of supposed new Species. By J. B. Steere, Ph.D., Professor of Zoology in the University of Michigan. Ann Arbor, Mich 1890. 8vo. 30 pp.

2. PRIONITURUS MINDORENSIS, sp. nov. (*Op. cit.* p. 6.)

Adult male.—General colour grass-green, as in *P. discurus*; crown and nape violet; lores, face, and chin yellow-green.

Hab. Mindoro.

3. CYCLOPSITTA MINDANENSIS, sp. nov. (*Op. cit.* p. 6.)

Adult male.—Collar violet; cheeks green. *C. lunulata* has a cobalt collar and blue cheeks in the adult male.

Hab. Mindanao.

4. LORICULUS SIQUIJORENSIS, sp. nov. (*Op. cit.* p. 6.)

Adult male with large quadrangular spot of crimson upon the forehead and crown, ending sharply in the general green colour of the upper surface. *Adult female* and *young male*: red spot upon the forehead veiled by blue tips to the red feathers.

Hab. Siquijor.

5. LORICULUS MINDORENSIS, sp. nov. (*Op. cit.* p. 6.)

Adult with a broad crimson band across the forehead below the eyes, ending sharply in the green of the upper surface.

Hab. Mindoro.

6. LORICULUS WORCESTERI, sp. nov. (*Op. cit.* p. 6.)

The crimson of the upper surface covering the forehead, crown, and nape, where it tapers to a point. It is distinguished from *L. hartlaubii*, its nearest ally, by the much fainter wash of orange-red upon the mantle and interscapulars, and by the shape of the red markings of the head and nape. In *L. hartlaubii* the crimson area grows wider on the nape, where it ends broadly.

All adult male Philippine *Loriculi* observed have an orange-red spot upon the breast and green cheeks. All adult females and all young males in their second plumage have blue on the cheeks and throat, and lack the orange-red plastron. All young birds in first plumage have the entire head green and the rump scarlet. The seven species met with can be readily distinguished in all but the first plumage by the shape and location of the crimson and yellow markings upon the head and nape.

Hab. Samar, Leyte.

7. *CIRCUS PHILIPPINENSIS*, sp. nov. (*Op. cit.* p. 7.)

Adult female.—Ashy brown. Head and neck streaked with white; hinder crown streaked with cinnamon. Scapulars and feathers of interscapular region narrowly tipped with white, and showing more or less of large ashy-white spots on both webs. Outer surface of folded wing ashy white, banded with black. Tail ashy white, banded with ashy brown and tipped with white. Upper tail-coverts white. Under surface white, narrowly streaked with ashy brown on throat and breast. Belly, thighs, and under tail-coverts pure white. Under surface of tail white, with ashy, and faintly banded.

Hab. Mindanao, Guimaras, Luzon.

8. *SPILORNIS PANAYENSIS*, sp. nov. (*Op. cit.* p. 7.)

Adult male.—Head black, feathers of crest sulphur-white at base, then black, narrowly edged with whitish. Rest of upper surface, with wings, light ashy brown, all the feathers edged with whitish. Tail broadly tipped with white, and with two broad whitish bars and part of a third basal one. Throat bluish ash, unmarked. Rest of under surface pale cinnamon, shaded with ash and spotted and banded as in *S. holospilus*. Length 19·75 inches, wing 12·50, tail 9·0, tarsus 2·80. Distinguished from *S. holospilus* by its small size and pale colouring.

Hab. Guimaras, Panay, Negros.

9. *THRIPONAX PHILIPPINENSIS*, sp. nov. (*Op. cit.* p. 8.)

Adult male.—Rump buffy white. Crest scarlet, with the bases of the feathers of the crown and nape white; cheeks and sides of face largely scarlet, nearly joining the scarlet feathers of the crest behind the eye. The feathers of the chin, throat, and neck narrowly tipped with scarlet; lower mandible horn-white, upper blackish.

Hab. Guimaras, Masbate.

10. *THRIPONAX MINDORENSIS*, sp. nov. (*Op. cit.* p. 8.)

Adult male.—Much smaller than *T. philippinensis*. Rump white. Much white upon ear-coverts and throat. Scarlet cheek-patch limited to a narrow bar upon the lower jaw.

Bases of the feathers of the forehead, as well as of the crest, white. White spot at bases of first and second primaries.

Hab. Mindoro.

11. *CHRYSOCOLAPTES SAMARENSIS*, sp. nov. (*Op. cit.* p. 8.)

Adult male.—General colour of upper parts crimson, as in *C. hæmatribon*. Under surface spotted, as in *C. lucidus*. Buffy feathers of face and throat washed with crimson, much deeper on the cheeks.

C. samarensis is curiously intermediate between *C. hæmatribon* and *C. lucidus*, having the back of one and the ventral surface of the other; but the crimson markings of the face and throat separate it from either.

Hab. Samar, Leyte.

12. *YUNGIPICUS BASILANICUS*, sp. nov. (*Op. cit.* p. 9.)

Head black, slightly tinged in front with cinnamon-brown. Crimson crest in male nearly confluent. Breast washed with orange-red, fading to sulphur-yellow behind. Inter-scalars black and barred with sulphur-yellow. Back sulphur-yellow.

Hab. Basilan.

13. *YUNGIPICUS LEYTENSIS*, sp. nov. (*Op. cit.* p. 9.)

Head black. Forehead and loreal region cinnamon. Breast tinged with crimson.

Hab. Leyte, Samar.

14. *CEYX SAMARENSIS*, sp. nov. (*Op. cit.* p. 10.)

Upper surface deep rufous. Inter-scalars forming two broad black bands. Wings black; coverts black and spotted with cobalt. Sides of the head rich lilac. Breast and upper abdomen lilac, fainter behind. Size—length 5·80 inches, tail 1·20, beak 1·20, wing 2·60, middle toe and claw 0·60. Differs from the true *C. melanura* of Luzon in its larger size, in the colouring of the cheeks and breast, and in the amount of colouring on the lower surface.

Hab. Samar, Leyte.

15. *CEYX MINDANENSIS*, sp. nov. (*Op. cit.* p. 10.)

Above rufous. Head, cheeks, and back thickly spotted

with bright lilac. Wings black, secondaries edged with rufous. Coverts black, broadly tipped with rufous, these rufous tips carrying faint lilac spots. Breast rufous, washed with bright lilac.

Hab. Mindanao.

16. *CEYX BASILANICA*, sp. nov. (*Op. cit.* p. 10.)

Colour much as in *C. mindanensis*. Rufous edging of the secondaries much broader, and upper secondaries broadly tipped with rufous. White spot on the side of neck not preceded by the blue and black markings found in the preceding species.

C. basilanica differs from *C. mindanensis* in having lost almost all the black in the scapulars and in the colouring of the wing and neck.

Hab. Basilan.

17. *CEYX FLUMINICOLA*, sp. nov. (*Op. cit.* p. 10.)

General colouring above as in *C. argentata*. Chin and throat buffy white. White spot on the belly. Breast, flanks, and remaining under surface deep ultramarine, with black bases to the feathers. Differs from *C. argentata* in smaller size, in the buffy-white chin and throat, and in the general colour of the under surface. Wing 2·27 inches, tail 1·25, culmen 1·40.

Hab. Samar, Leyte.

18. *CEYX BOURNSII*, sp. nov. (*Op. cit.* p. 10.)

Head, nape, and interscapulars thickly spotted with bright cobalt, the blackish bases of the feathers appearing between. Back silvery blue; scapulars black, tipped with faint cobalt. Upper tail-coverts and tail cobalt. Wing-coverts spotted with cobalt; primaries black, first rufous on the outer web. Throat and spot on the side of the neck white, the latter tinged with rufous. Cheeks and rest of the under surface orange-rufous, deeper on the breast. Length 4·5 inches culmen 1·0, wing 2·5. This species appears to be most nearly allied to *C. cajeli* from Bourou.

Hab. Basilan.

19. *CEYX MALAMAUI*, sp. nov. (*Op. cit.* p. 11.)

Head, nape, interscapular region, and wing-coverts black, spotted with ultramarine. Scapulars black, washed with ultramarine. Back silvery blue. Tail black, tinged with ultramarine. Wings black. Spot on the side of neck white. Throat white, tinged with orange. Large loreal spot, cheeks, and the rest of the under surface orange-rufous. Length 5·0 inches, culmen 1·15, wing 2·60.

This Kingfisher appears most nearly allied to *C. lepida*.

Hab. Basilan.

20. *ACTENOIDES MOSELEXI*, sp. nov. (*Op. cit.* p. 11.)

A single specimen of *Actenoides*, a female, procured in Negros, is near to *A. lindsayi*. It has the green head, with the blue stripe on the side and back of the head, of the male of that species, with the buffy ear-coverts and green moustachia. stripe of the female. It differs from both sexes of that species in having a black nape and mantle, and black edgings to the feathers of the breast and flanks.

Hab. Negros.

21. *CENTROCOCYX MINDORENSIS*, sp. nov. (*Op. cit.* p. 12.)

All black, with bronze-green reflections. Head duller black. Wing slightly shaded with rufous, most apparent on edges of primaries. Eyes red. Legs and beak black. Length 17·0 inches, tail 11·0, wing 7·0. Sexes alike in colour.

Hab. Mindoro.

22. *PENELOPIDES BASILANICA*, sp. nov. (*Op. cit.* p. 13.)

Much like *P. affinis* of Mindanao, but differs from it in having the rufous upon the tail reaching to and beneath the upper tail-coverts, so that the whole base of the tail appears rufous, though some specimens show some black at the bases of the feathers when they are uncovered. The sides of the mandibles are also flesh-coloured to their bases, instead of being black behind, as in *P. affinis*.

Hab. Basilan.

23. *PENELOPIDES SAMARENSIS*, sp. nov. (*Op. cit.* p. 13.)

Most like *P. panini*, but differs from it in having, in the

male, the belly, under tail-coverts, thighs, breast, and upper tail-coverts buffy white, uniform with the head and breast, instead of dark rufous, as in *P. panini*. The chiselling upon the beak is also very different. In *P. panini* both mandibles are extensively grooved, the furrows in the upper mandible being buffy white and the ridges between black; the ridges below are also black, with indications of lighter furrows. In *P. samarensis* the chiselling is nearly limited to the lower mandible, and upon this the ridges are white and the furrows dark.

Hab. Samar, Leyte.

24. *PENELOPIDES MINDORENSIS*, sp. nov. (*Op. cit.* p. 13.)

Similar to *P. manillæ*, but black, with bronze-green gloss, instead of brown, as in *P. manillæ*. The whole base of the tail is light ferruginous, instead of this colour being limited to a narrow bar, as in *P. manillæ*, and the lower mandible is plain, instead of being chiselled, as in that species. The female of *P. mindorensis* has the feathers of the head white, as in the male, thus differing from the other Philippine species, in all of which the females are black-headed.

The males and females of *P. mindorensis* differ chiefly in the colour of the bare skin about the eye and the base of the beak, this in life being dark blue in the female and flesh-coloured in the male.

Hab. Mindoro.

25. *ARTAMIDES MINDORENSIS*, sp. nov. (*Op. cit.* p. 14.)

Nearly similar to *A. striatus*, but differs in having the black of the lores extending about the eye, and in the rump and upper tail-coverts being uniform with the back, and not fringed with grey.

Hab. Mindoro.

26. *ARTAMIDES MINDANENSIS*, sp. nov. (*Op. cit.* p. 14.)

Young.—Whole of under plumage and the rump and upper tail-coverts barred with black and white. Rest of upper surface lead-grey.

Adult male.—Chin, throat, and upper breast uniform plumbeous grey, like the back. Rest of under surface and the

rump and upper tail-coverts barred with black and white. The black bars become narrower behind below, until the under tail-coverts are nearly or quite pure white.

Hab. Mindanao, Samar.

27. *ARTAMIDES PANAYENSIS*, sp. nov. (*Op. cit.* p. 14.)

Young.—Barred below like *A. mindanensis*, but with the black bars much broader, giving the under surface a darker look. Feathers of rump and upper tail-coverts plumbeous at base, then broadly black, then white-edged.

Adult male.—Throat and breast uniform plumbeous grey. Rest of under surface and rump and upper tail-coverts barred, as in the young. Bars of black on under tail-coverts as broad as the white. *A. panayensis* is a shade darker plumbeous grey than *A. mindanensis*. Black and plumbeous predominate on the rump and upper tail-coverts; black predominates in the barring beneath. In *A. mindanensis* white is more prominent in the barring below and above.

Hab. Guimaras, Panay, Masbate.

28. *EDOLIOSOMA (GRAUCALUS) PANAYENSE*, sp. nov. (*Op. cit.* p. 14.)

Adult male.—Above lead-black, lighter and washed with ashy on rump and upper tail-coverts. Throat, breast, wings, and tail clear black. Flanks and thighs plumbeous black. Under wing- and tail-coverts white. Wing-coverts and outer edges of secondaries forming a white wing-bar, as in *Lalage*. Feathers of tail tipped with white.

Female.—Plumbeous grey above and below. Wings and tail as in the male. Legs and beak black. Length 10·40 inches, tail 5·0, wing 5·25, culmen 1·0, tarsus 0·85.

Hab. Guimaras, Panay.

29. *PSEUDOLALAGE MINOR*, sp. nov. (*Op. cit.* p. 15.)

This bird of the *P. melanoleuca* type differs in being much smaller, averaging about 7·50 inches, while *P. melanoleuca* averages 8·25. The male agrees almost exactly with *P. melanoleuca* in colouring. The white tips of the two outer tail-feathers are much narrower. The females of the two species differ most; they are alike on the upper surface, but *Pseudo-*

lulage minor has the chin, throat, and breast plumbeous grey, with dark shaft-stripes and faint whitish above. The plumbeous of the breast fades into white on the belly and under tail-coverts.

Hab. Mindanao.

30. *PERICROCOTUS LEYTENSIS*, sp. nov. (*Op. cit.* p. 15.)

The adult male has the general colouring of *P. igneus*, but is larger, and the central tail-feathers are tipped with vermilion. The four outer primaries are black, and at least seven of the secondaries have vermilion markings on the outer webs towards their tips, as well as the broad vermilion bars across their bases. Length 7·0 inches, wing 3·0, tail 3·50.

Hab. Leyte.

31. *HYPOTHYMIS SAMARENSIS*, sp. nov. (*Op. cit.* p. 16.)

I find this form of *Hypothymis* from the eastern islands constantly differing from *H. superciliaris* in having the head black, slightly washed with blue. The silvery cobalt plumes on the forehead, and over the eye also, form a much narrower line.

Hab. Samar, Leyte.

32. *CYANOMYAS HELENÆ*, sp. nov. (*Op. cit.* p. 16.)

Adult male.—Entire upper surface rich azure-blue, lighter on upper tail-coverts. Forehead and line over eye silvery cobalt. Wings much darker blue. Lore and space extending back to the eye black. Chin black. Throat and breast dark azure-blue. Abdomen white. Feathers of crest and sides of head much lengthened, as in *C. cælestis*. Size smaller.

Hab. Samar.

33. *SETARIA SAMARENSIS*, sp. nov. (*Op. cit.* p. 16.)

Differs chiefly from *S. ruficauda* of Sharpe in having the cheeks brown, and not olive, and in having the under surface washed with fulvous brown, this forming a broad band across the breast.

Hab. Mindanao, Samar.

34. *ORIOLOUS SAMARENSIS*, sp. nov. (*Op. cit.* p. 17.)

Yellower than *O. steerii*. Central tail-feathers unmarked.

The grey of the wing-coverts and primaries and secondaries replaced by yellow. Feathers of breast and flanks streaked as in *O. steerii*, but washed with yellow. Under wing-coverts light yellow.

Hab. Samar.

35. *MACRONUS MINDANENSIS*, sp. nov. (*Op. cit.* p. 17.)

Head and nape brown, streaked with whitish. Throat white, washed with fulvous, this colour becoming more pronounced on the breast and abdomen, taking the place of the olivaceous colouring of *M. striaticeps*.

Hab. Mindanao, Samar, Leyte.

36. *MIXORNIS NIGRO-CAPITATUS*, sp. nov. (*Op. cit.* p. 17.)

Head black, tinged with dark rufous at the sides. Back dark ashy, with very narrow lighter shaft-lines. Chin and moustachial stripe dark rufous. Throat saffron-yellow, washed with rufous. Rest of under surface yellowish white.

Hab. Samar, Leyte.

37. *PTILOCICHLA BASILANICA*, sp. nov. (*Op. cit.* p. 18.)
(Plate VII.)

Sexes alike. Above olive-brown, becoming rufous on wings and rump. Feathers of head and nape broadly edged with black. Feathers of lower back very long, overlapping the rufous upper tail-coverts, silky, and with narrow whitish shaft-stripes, and with concealed broad white tips beneath. White eye-stripe reaching to nape. Chin and throat white, with black moustachial stripe. Breast black, tinged with rufous, and with broad white shaft-stripes, this colouring continuing on the belly and under tail-coverts, but the rufous predominating. Length 6·0 inches, wing 3·25, tail 2·30, tarsus 0·11, culmen 0·75.

Hab. Basilan.

38. *PTILOCICHLA MINDANENSIS*, sp. nov. (*Op. cit.* p. 18.)

Above fulvous brown. Feathers of head narrowly edged with black. Feathers of back showing indistinct shaft-stripes. Below much as in *P. basilanica*, which it equals in size also.

It is readily separated by the fulvous brown of the head and the uniform fulvous of the back.

Hab. Mindanao.

39. *IRENA ELLÆ*, sp. nov. (*Op. cit.* p. 18.) (Plate VIII.)

Adult male.—Crown of head and nape deep cobalt-blue, as in *I. cyanogastra*. Sides of neck, back, and scapulars velvety black. Lower back washed with cobalt, this becoming rich cobalt on upper tail-coverts. Tail black, washed with deep cobalt. Wings marked with cobalt much as in *I. cyanogastra*. Under surface deep velvety black, feathers of abdomen slightly washed with blue. Under tail-coverts deep cobalt.

Adult female.—Chin and throat velvety black. Breast, abdomen, and flanks purplish blue. Size the same as that of *I. cyanogastra*.

I. ellæ can be readily distinguished from *I. cyanogastra*, its nearest ally, by its black back.

Hab. Samar, Leyte.

40. *POLIOLOPHUS BASILANICUS*, sp. nov. (*Op. cit.* p. 19.)

Hab. Mindanao, Basilan.

41. *IOLE GUIMARASENSIS*, sp. nov. (*Op. cit.* p. 19.)

Size and general colouring of *I. rufigularis*, with the light shaft-streaks on the throat of *I. philippinensis*.

On crossing from Negros to Cebu I immediately noticed the greatly different note of the Cebu bird.

Hab. Negros, Panay, Guimaras.

42. *IOLE MINDORENSIS*, sp. nov. (*Op. cit.* p. 19.)

Above dark olive-brown. Head dark brown, slightly washed with ashy. Throat and breast brown, faintly rufous shaded, and with faint lighter shaft-streaks. Rest of under surface light olive-brown, with light shaft-streaks, somewhat lighter on the belly. Length 8·0 inches, wing 4·0, tail 4·0, culmen 1·10.

Distinguished from *I. philippinensis* by its long beak, faint rufous-brown throat, and olive-brown under surface.

Hab. Mindoro.

43. *IOLE SIQUIJORENSIS*, sp. nov. (*Op. cit.* p. 19.)

Head nearly black. Rest of upper surface dark olive-brown, feathers narrowly edged with grey, lighter on the rump. Wings and tail like the back. Wing-coverts and secondaries broadly tipped with whitish. Throat white, feathers narrowly edged with brown. Breast olive-brown, with broad whitish shaft-stripes. Belly whitish, washed with yellow. Length 9.75 inches, wing 5.25, tail 5.0, culmen 1.25.

This black-headed Bulbul is apparently confined to the little island of Siquijor.

Hab. Siquijor.

44. *CITTOCINCLA CEBUENSIS*, sp. nov. (*Op. cit.* p. 20.)

Entirely black. Upper and under surface glossy purplish black. Wings and tail black, edged with purplish black. Length 8.50 inches, wing 3.75, tail 4.50, culmen 0.75.

Hab. Cebu.

45. *ORTHOTOMUS PANAYENSIS*, sp. nov. (*Op. cit.* p. 20.)

The chestnut-headed Tailor-bird from Panay must, I think, be separated from that of the other islands. It is smaller, and the slaty gray is confined to a brief space on the mantle. The interscapular region, as well as the rest of the back, is green.

Hab. Panay.

46. *ORTHOTOMUS SAMARENSIS*, sp. nov. (*Op. cit.* p. 20.)

Adult male.—Head black. Collar yellow. Rest of upper surface dark olive-green. Chin and jaw white. Throat black. Rest of under surface bright yellow. Tail chestnut; outer pair of tail-feathers with outer web yellow. Length 4.60 inches, wing 2.90, tail 1.80.

Hab. Samar.

47. *ZOSTEROPS BASILANICA*, sp. nov. (*Op. cit.* p. 21.)

Above dark olive-green, but a little lighter on the head and rump. Wings and tail blackish, edged with olive-green. Lores dusky, space above them not distinctly yellow. Chin, throat, and a broad stripe along the breast and abdomen sulphur-yellow. Sides of breast and flanks clear ashy grey.

Differs from *Z. everettii* in wanting the light yellow spot above the lores, and in the broad and deeper yellow stripe along the under surface.

Hab. Basilan, Samar, Leyte.

48. *PHILEMON PHILIPPINENSIS*, sp. nov. (*Op. cit.* p. 21.)

Adult female.—Above olive-green. Wings brown, edged with olive-yellow. Under surface ashy olive, washed with olive-green. Forehead, space about gape, in front of the eye, and ear-coverts bare. Length 6.60 inches, wing 3.2, tail 1.80, culmen 1.55.

Hab. Samar.

49. *DICÆUM BESTI*, sp. nov. (*Op. cit.* p. 22.)

Differs from *D. cinereigulare* in having the entire throat ashy grey, and not yellow. Rump distinctly yellow.

Hab. Siquijor.

50. *PRIONOCHILUS SAMARENSIS*, sp. nov. (*Op. cit.* p. 22.)

Similar to *P. olivaceus*. Differs from it in having the breast and sides of the throat ash-brown, nearly snuff-brown, instead of ashy olive.

Hab. Samar, Leyte.

51. *CINNYRIS GUIMARASENSIS*, sp. nov. (*Op. cit.* p. 22.)

Adult male.—Forehead and crown metallic green, with violet reflections. Hind head, neck, and upper part of mantle dark blood-red. Back olive-yellow. Chin violet. Cheeks, sides of neck, and throat velvety black. Breast rich orange, separated from the black of the throat by a sulphur-yellow band. A central stripe on the throat, partly concealed, of rich vermilion. Flanks and abdomen pale yellow. Length 3.50 inches, wing 1.90.

Hab. Guimaras.

52. *CORVUS SAMARENSIS*, sp. nov. (*Op. cit.* p. 23.)

Adult male.—Black all over, with purple gloss; little duller on the underparts. Beak greatly curved. Length 13.25 inches, wing 9.0, tail 5.25, tarsus 1.50, culmen 1.80, depth at base 0.87.

This little Mountain Crow of Samar is readily distinguished from *C. pusillus* of the island of Paragua by its immense curved beak.

Hab. Samar.

53. *SARCOPHANOPS SAMARENSIS*, sp. nov. (*Op. cit.* p. 23.)

Differs from *S. steerii* chiefly in having the back mottled lilac and brown, instead of dark ashy, this in both sexes. A lilac wing-bar takes the place of the golden yellow one of *S. steerii*. The male is lilac below and the female white, as in *S. steerii*.

Hab. Samar.

XXX.—*On the Birds of the Lower Yangtse Basin.*—Part I.
By F. W. STYAN, F.Z.S.

THE district treated of in this paper extends from Hankow to the mouth of the Yangtse, embracing the last 600 miles of the river's course. Strictly speaking, the Lower Yangtse basin should include the last 1000 miles, but from want of opportunity I am unable to treat of the 400 miles between Ichang and Hankow; it is, however, an uninteresting region, and would probably furnish little information which cannot be obtained eastward of Hankow.

The Yangtse may fairly be divided into three sections—the Upper river, the Lower river, and the delta; the avifauna of the two latter is practically the same, and differs widely from that of the Upper Yangtse, as might be expected. The Upper Yangtse from its source passes through the high tablelands and mountainous regions of Sechuen until it debouches into the plains through the famous gorges at Ichang. Thence, for some 450 miles, its course is mostly through a broad valley and ancient lake-beds, backed by mountain-ranges of more or less importance, through some of which the river has cut its way. A little below Chin-kiang, or perhaps at Kiang Yin, some 60 miles lower down, the delta begins, embracing a large extent of low land deposited by the river, and extends on the right bank to Hang-



